

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/520,126  
Source: PT  
Date Processed by STIC: 3/3/06

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PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/520,126

DATE: 03/13/2006  
TIME: 12:12:23

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt  
Output Set: N:\CRF4\03132006\J520126.raw

3 <110> APPLICANT: Sode, Koji  
 5 <120> TITLE OF INVENTION: Glucose Dehydrogenase  
 7 <130> FILE REFERENCE: 3691-0114PUS1  
 9 <140> CURRENT APPLICATION NUMBER: US 10/520,126  
 10 <141> CURRENT FILING DATE: 2005-01-03  
 12 <150> PRIOR APPLICATION NUMBER: PCT/JP03/08418  
 13 <151> PRIOR FILING DATE: 2002-07-02  
 15 <150> PRIOR APPLICATION NUMBER: JP 2003-71760  
 16 <151> PRIOR FILING DATE: 2003-03-17  
 18 <150> PRIOR APPLICATION NUMBER: JP 2002-196177  
 19 <151> PRIOR FILING DATE: 2002-07-04  
 21 <160> NUMBER OF SEQ ID NOS: 19  
 23 <170> SOFTWARE: PatentIn version 3.3  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 454  
 27 <212> TYPE: PRT  
 28 <213> ORGANISM: Acinetobacter calcoaceticus  
 30 <400> SEQUENCE: 1  
 31 Asp Val Pro Leu Thr Pro Ser Gln Phe Ala Lys Ser Glu Asn  
 32 1 5 10 15  
 33 Phe Asp Lys Lys Val Ile Leu Ser Asn Leu Asn Lys Pro His Ala Leu  
 34 20 25 30  
 35 Leu Trp Gly Pro Asp Asn Gln Ile Trp Leu Thr Glu Arg Ala Thr Gly  
 36 35 40 45  
 37 Lys Ile Leu Arg Val Asn Pro Glu Ser Gly Ser Val Lys Thr Val Phe  
 38 50 55 60  
 39 Gln Val Pro Glu Ile Val Asn Asp Ala Asp Gly Gln Asn Gly Leu Leu  
 40 65 70 75 80  
 41 Gly Phe Ala Phe His Pro Asp Phe Lys Asn Asn Pro Tyr Ile Tyr Ile  
 42 85 90 95  
 43 Ser Gly Thr Phe Lys Asn Pro Lys Ser Thr Asp Lys Glu Leu Pro Asn  
 44 100 105 110  
 45 Gln Thr Ile Ile Arg Arg Tyr Thr Tyr Asn Lys Ser Thr Asp Thr Leu  
 46 115 120 125  
 47 Glu Lys Pro Val Asp Leu Leu Ala Gly Leu Pro Ser Ser Lys Asp His  
 48 130 135 140  
 49 Gln Ser Gly Arg Leu Val Ile Gly Pro Asp Gln Lys Ile Tyr Tyr Thr  
 50 145 150 155 160  
 51 Ile Gly Asp Gln Gly Arg Asn Gln Leu Ala Tyr Leu Phe Leu Pro Asn  
 52 165 170 175  
 53 Gln Ala Gln His Thr Pro Thr Gln Gln Glu Leu Asn Gly Lys Asp Tyr  
 54 180 185 190  
 55 His Thr Tyr Met Gly Lys Val Leu Arg Leu Asn Leu Asp Gly Ser Ile

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56 195 200 205  
57 Pro Lys Asp Asn Pro Ser Phe Asn Gly Val Val Ser His Ile Tyr Thr  
58 210 215 220  
59 Leu Gly His Arg Asn Pro Gln Gly Leu Ala Phe Thr Pro Asn Gly Lys  
60 225 230 235 240  
61 Leu Leu Gln Ser Glu Gln Gly Pro Asn Ser Asp Asp Glu Ile Asn Leu  
62 245 250 255  
63 Ile Val Lys Gly Gly Asn Tyr Gly Trp Pro Asn Val Ala Gly Tyr Lys  
64 260 265 270  
65 Asp Asp Ser Gly Tyr Ala Tyr Ala Asn Tyr Ser Ala Ala Asn Lys  
66 275 280 285  
67 Ser Ile Lys Asp Leu Ala Gln Asn Gly Val Lys Val Ala Ala Gly Val  
68 290 295 300  
69 Pro Val Thr Lys Glu Ser Glu Trp Thr Gly Lys Asn Phe Val Pro Pro  
70 305 310 315 320  
71 Leu Lys Thr Leu Tyr Thr Val Gln Asp Thr Tyr Asn Tyr Asn Asp Pro  
72 325 330 335  
73 Thr Cys Gly Glu Met Thr Tyr Ile Cys Trp Pro Thr Val Ala Pro Ser  
74 340 345 350  
75 Ser Ala Tyr Val Tyr Lys Gly Gly Lys Lys Ala Ile Thr Gly Trp Glu  
76 355 360 365  
77 Asn Thr Leu Leu Val Pro Ser Leu Lys Arg Gly Val Ile Phe Arg Ile  
78 370 375 380  
79 Lys Leu Asp Pro Thr Tyr Ser Thr Thr Tyr Asp Asp Ala Val Pro Met  
80 385 390 395 400  
81 Phe Lys Ser Asn Asn Arg Tyr Arg Asp Val Ile Ala Ser Pro Asp Gly  
82 405 410 415  
83 Asn Val Leu Tyr Val Leu Thr Asp Thr Ala Gly Asn Val Gln Lys Asp  
84 420 425 430  
85 Asp Gly Ser Val Thr Asn Thr Leu Glu Asn Pro Gly Ser Leu Ile Lys  
86 435 440 445  
87 Phe Thr Tyr Lys Ala Lys  
88 450  
91 <210> SEQ ID NO: 2  
92 <211> LENGTH: 1612  
93 <212> TYPE: DNA  
94 <213> ORGANISM: Acinetobacter calcoaceticus  
96 <400> SEQUENCE: 2  
97 agctactttt atgcaacaga gcctttcaga aattttagatt ttaatagatt cgttattcat 60  
98 cataatacaa atcatataga gaactcgtac aaacccttta ttagagggtt aaaaattctc 120  
99 gggaaaatttt gacaatttt aagggtggaca catgaataaa catttattgg ctaaaattgc 180  
100 ttatattaagc gctgttcagc tagttacact ctcagcattt gctgatgttc ctctaactcc 240  
101 atctcaattt gctaaagcga aatcagagaa ctttgacaag aaagttatttc tatctaattct 300  
102 aaataagccg catgcttgt tatggggacc agataatcaa atttggtaa ctgagcgagc 360  
103 aacaggttaag attctaagag ttaatccaga gtcgggtagt gtaaaaacag ttttcaggt 420  
104 accagagatt gtcaatgtat ctgatgggca gaatggttt ttaggtttg ccttccatcc 480  
105 tgatttaaa aataatccctt atatctatat ttcaaggtaa tttaaaaatc cgaaatctac 540  
106 agataaaagaa ttaccgaacc aaacgattat tcgtcggtat acctataata aatcaacaga 600  
107 tacgctcgag aagccagtcg atttatttagc aggattacct tcatcaaaag accatcagtc 660

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108 aggtcgtctt gtcattggc cagatcaaaa gatttattt acgattggc accaaggcg 720  
 109 taaccagctt gcttatttgt tcttgccaaa tcaagcacaa catacgccaa ctcacaaga 780  
 110 actgaatggt aaagactatc acacctataat ggttaaagta ctacgctaa atcttgcgtt 840  
 111 aagtattcca aaggataatc caagtttaa cgggtgggtt agccatattt atacacttgg 900  
 112 acatcgtaat ccgcagggt tagcattcac tccaaatggt aaattattgc agtctgaaca 960  
 113 aggccccaaac tctgacgatg aaattaacctt cattgtcaaa ggtggcaattt atggttggcc 1020  
 114 gaatgttagca ggttataaag atgatagtgg ctatgcctt gcaaattattt cagcagcagc 1080  
 115 caataagtca attaaggatt tagctcaaaa tggagtaaaa gtagccgcag gggccctgt 1140  
 116 gacgaaagaa tctgaatggc ctggtaaaaaa ctttgcctt ccattaaaaa ctttatatac 1200  
 117 cgttcaagat acctacaact ataacgatcc aacttgcgtt gagatgaccc acatttgctg 1260  
 118 gccaacagt gCACCGTcat ctgcctatgt ctataaggcc ggtaaaaaag caattactgg 1320  
 119 ttggggaaat acattattgg ttccatctt aaaacgtgtt gtcatttcc gtattaagtt 1380  
 120 agatccaact tatagcacta cttatgtatgtt cgctgtaccg atgtttaaga gcaacaaccg 1440  
 121 ttatcgatgtt gtagtttccatgtt gtccttgcgtt gtagtcttataa ctgatactgc 1500  
 122 cggaaatgtc caaaaagatg atggctcaatg aacaataca ttagaaaaacc caggatctct 1560  
 123 cattaagttc acctataagg ctaagtaata cagtcgcatt aaaaaaccga tc 1612  
 126 <210> SEQ ID NO: 3  
 127 <211> LENGTH: 8  
 128 <212> TYPE: PRT  
 129 <213> ORGANISM: *Acinetobacter calcoaceticus*  
 131 <220> FEATURE:  
 132 <221> NAME/KEY: misc\_feature  
 133 <222> LOCATION: (4)..(5)  
 134 <223> OTHER INFORMATION: Xaa can be any amino acid provided that when Xaa at pos. 4  
 is Gln, then  
 135 Xaa at pos. 5 is not Leu  
 137 <400> SEQUENCE: 3  
 W--> 138 Gly Arg Asn Xaa Xaa Ala Tyr Leu  
 139 1 5  
 142 <210> SEQ ID NO: 4  
 143 <211> LENGTH: 21  
 144 <212> TYPE: DNA  
 145 <213> ORGANISM: Artificial Sequence  
 147 <220> FEATURE:  
 148 <223> OTHER INFORMATION: synthetic primer for point mutation  
 150 <400> SEQUENCE: 4  
 151 ataagcaagc gggtaacgcc c 21  
 154 <210> SEQ ID NO: 5  
 155 <211> LENGTH: 27  
 156 <212> TYPE: DNA  
 157 <213> ORGANISM: Artificial Sequence  
 159 <220> FEATURE:  
 160 <223> OTHER INFORMATION: synthetic primer for point mutation  
 162 <400> SEQUENCE: 5  
 163 caaataagca agccgttac gccccttg 27  
 166 <210> SEQ ID NO: 6  
 167 <211> LENGTH: 21  
 168 <212> TYPE: DNA  
 169 <213> ORGANISM: Artificial Sequence  
 171 <220> FEATURE:

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Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt  
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172 <223> OTHER INFORMATION: synthetic primer for point mutation  
174 <400> SEQUENCE: 6  
175 caaataagca gcctggttac g 21  
178 <210> SEQ ID NO: 7  
179 <211> LENGTH: 27  
180 <212> TYPE: DNA  
181 <213> ORGANISM: Artificial Sequence  
183 <220> FEATURE:  
184 <223> OTHER INFORMATION: synthetic primer for point mutation  
186 <400> SEQUENCE: 7  
187 gaacaaataaa gcaccctggc tacgccc 27  
190 <210> SEQ ID NO: 8  
191 <211> LENGTH: 26  
192 <212> TYPE: DNA  
193 <213> ORGANISM: Artificial Sequence  
195 <220> FEATURE:  
196 <223> OTHER INFORMATION: synthetic primer for point mutation  
198 <400> SEQUENCE: 8  
199 cctgacttat gttctttga tgaagg 26  
202 <210> SEQ ID NO: 9  
203 <211> LENGTH: 27  
204 <212> TYPE: DNA  
205 <213> ORGANISM: Artificial Sequence  
207 <220> FEATURE:  
208 <223> OTHER INFORMATION: synthetic primer for point mutation  
210 <400> SEQUENCE: 9  
211 catcttttg gacagttccg gcagtt 27  
214 <210> SEQ ID NO: 10  
215 <211> LENGTH: 27  
216 <212> TYPE: DNA  
217 <213> ORGANISM: Artificial Sequence  
219 <220> FEATURE:  
220 <223> OTHER INFORMATION: synthetic primer for point mutation  
222 <400> SEQUENCE: 10  
223 caaataagca agcaggttac gcccttg 27  
226 <210> SEQ ID NO: 11  
227 <211> LENGTH: 27  
228 <212> TYPE: DNA  
229 <213> ORGANISM: Artificial Sequence  
231 <220> FEATURE:  
232 <223> OTHER INFORMATION: synthetic primer for point mutation  
234 <400> SEQUENCE: 11  
235 caaataagca agaaagttac gcccttg 27  
238 <210> SEQ ID NO: 12  
239 <211> LENGTH: 27  
240 <212> TYPE: DNA  
241 <213> ORGANISM: Artificial Sequence  
243 <220> FEATURE:  
244 <223> OTHER INFORMATION: synthetic primer for point mutation

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Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt  
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246 <400> SEQUENCE: 12  
247 caaataagca aggctgttac gcccttg 27  
250 <210> SEQ ID NO: 13  
251 <211> LENGTH: 27  
252 <212> TYPE: DNA  
253 <213> ORGANISM: Artificial Sequence  
255 <220> FEATURE:  
256 <223> OTHER INFORMATION: synthetic primer for point mutation  
258 <400> SEQUENCE: 13  
259 caaataagca aggttgttac gcccttg 27  
262 <210> SEQ ID NO: 14  
263 <211> LENGTH: 27  
264 <212> TYPE: DNA  
265 <213> ORGANISM: Artificial Sequence  
267 <220> FEATURE:  
268 <223> OTHER INFORMATION: synthetic primer for point mutation  
270 <400> SEQUENCE: 14  
271 caaataagca agatcggttac gcccttg 27  
274 <210> SEQ ID NO: 15  
275 <211> LENGTH: 27  
276 <212> TYPE: DNA  
277 <213> ORGANISM: Artificial Sequence  
279 <220> FEATURE:  
280 <223> OTHER INFORMATION: synthetic primer for point mutation  
282 <400> SEQUENCE: 15  
283 caaataagca agttcggttac gcccttg 27  
286 <210> SEQ ID NO: 16  
287 <211> LENGTH: 27  
288 <212> TYPE: DNA  
289 <213> ORGANISM: Artificial Sequence  
291 <220> FEATURE:  
292 <223> OTHER INFORMATION: synthetic primer for point mutation  
294 <400> SEQUENCE: 16  
295 caaataagca agtttgttac gcccttg 27  
298 <210> SEQ ID NO: 17  
299 <211> LENGTH: 27  
300 <212> TYPE: DNA  
301 <213> ORGANISM: Artificial Sequence  
303 <220> FEATURE:  
304 <223> OTHER INFORMATION: synthetic primer for point mutation  
306 <400> SEQUENCE: 17  
307 gaacaaataa gccatctggc tacggcc 27  
310 <210> SEQ ID NO: 18  
311 <211> LENGTH: 27  
312 <212> TYPE: DNA  
313 <213> ORGANISM: Artificial Sequence  
315 <220> FEATURE:  
316 <223> OTHER INFORMATION: synthetic primer for point mutation  
318 <400> SEQUENCE: 18

RAW SEQUENCE LISTING ERROR SUMMARY                    DATE: 03/13/2006  
PATENT APPLICATION: US/10/520,126                    TIME: 12:12:24

Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt  
Output Set: N:\CRF4\03132006\J520126.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 4,5

**VERIFICATION SUMMARY**

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Input Set : A:\2005-09-21 3691-0114PUS1.ST25.txt  
Output Set: N:\CRF4\03132006\J520126.raw

L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0